

ES
at least one compressor in fluid communication via a second conduit with said second inlet port, said compressor generating compressed air at least while said second intake valve is open, said second pressure being greater than said first pressure,

whereby air at at least the first pressure is introduced to the cylinder during the intake stroke and air at at least the second pressure is introduced into the cylinder during the compression stroke.

REMARKS

1. This Amendment is in response to the outstanding Office Action dated February 10, 2000. This Amendment is being filed within the 6 month statutory period for response. An Extension Request paying for the three (3) month extension of the shortened statutory period is already on file, having been filed and paid on August 4, 2000.
2. Applicant hereby affirms the election of species B, wherein plural compressors are in parallel, for the prosecution under this application. Applicant reserves the right to pursue non-elected species A, wherein plural compressors are in series, in other applications. As result of the election, claims 25, 26, 31, 34, 35, 36, 38, 39, 43, 44, 46, 47, and 49 are under consideration in this application. If generic claims are allowed, it is understood that the Species A claims will be reconsidered in the present application.
3. The Office Action indicates that claims 25, 34, 35, 36, and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims have been modified according to Examiner's suggestions.
4. The Office Action has rejected the still pending claims 25, 34, 36, 38, 39, 44, 46, 47 and 49 variously under 35 U.S.C. §§102 and 103 using Miller '934, Bricout '388, Cook '234, Okimoto and USSR 1,247,573. Applicant respectfully disagrees and requests reconsideration.

The present invention, as claimed, comprises an engine block with cylinders having two inlet ports, and compressed air is introduced into the cylinders during the compression strokes. These limitations have been incorporated into all independent claims under consideration.

None of these prior art references, either individually or in combination, teaches the claimed invention. Miller and Bricout do not teach cylinders with two inlet ports, nor do they teach any introduction of air to the cylinder during the compression stroke. Cook does not teach the introduction of air during the compression stroke. Okimoto and USSR patent, from what can be observed in the translated abstracts, also do not teach the introduction of air during the compression stroke.

5. The Office Action indicates that claims 25, 34, 36, and 44 are rejected under 35 U.S.C. 102(b) as been anticipated by Miller '934. Applicant respectfully disagrees and requests reconsideration.

Applicant believes that claims 25 and 34, as amended, include limitations such as (i) two inlet ports and (ii) structural means for directing air to the cylinder during the compression stroke, which are not disclosed by Miller '934. Claims 36 and 44 include separately patentable features, but, in any event, are dependent on claims 25 and 34 respectively, and as such it is submitted that they are patentable and not anticipated by Miller '934 either.

6. The Office Action indicates that claim 38 is rejected under 35 U.S.C. 102(b) as been anticipated by either Bricout '388 or Cook '234. Applicant respectfully disagrees and requests reconsideration.

Applicant believes that claim 38, as amended, includes limitations such as structural means for directing air to the cylinder during the compression stroke, which is not disclosed by Cook or Bricout either individually or in combination as discussed above. Therefore, Applicant believes that claim 38 is patentable over Bricout and Cook.

W

7. The Office Action indicates that claim 39 is rejected under 35 U.S.C. 102(b) as been anticipated by USSR 1,247,573. Applicant respectfully disagrees and requests reconsideration.

Applicant believes that claim 39, as amended, includes limitations such as structural means for directing air to the cylinder during the compression stroke, which is not disclosed by USSR 1,247,573, based on what can be learned from the abstract translation, as discussed above. Therefore, Applicant believes that claim 39 is patentable over USSR 1,247,573.

8. The Office Action indicates that claim 46 is rejected under 35 U.S.C. 103(a) as been unpatentable over either Bricout or Cook in view of Miller '934. Applicant respectfully disagrees and requests reconsideration.

Claim 46 includes separately patentable limitations, and, in any event, is dependent on claim 38, which is believed to be patentable over Bricout, Cook, and Miller. It is believed that the combination of the prior art disclosed by Bricout, Cook and Miller does not disclose, either individually or in combination, the claimed invention that introduces compressed air into a cylinder during the compression stroke and that includes the means for managing air volumes as expressed in claim 46. Therefore, it is believed that claim 46 is patentable over Bricout or Cook in view of Miller.

9. The Office Action indicates that claims 47 and 49 are rejected under 35 U.S.C. 103(a) as been unpatentable over USSR 1,247,573 in view of Miller '934. Applicant respectfully disagrees and requests reconsideration.

Claim 47 includes separately patentable limitations, and, in any event, depends on claim 39, which, as discussed above, is believed to be patentable over USSR 1,247,573. It is believed that the combination of the prior art disclosed by USSR 1,247,573 and Miller does not disclose the claimed invention that introduces compressed air into a

CW

cylinder during the compression stroke and that includes the means for managing air volumes as expressed in claim 47. Similarly, claim 47 is believed to be equally patentable over USSR 1,247,573 in view of Miller.

Claim 49 includes separately patentable limitations, and, in any event, depends on claim 25, which is believed not be anticipated by USSR 1,247,573, because USSR 1,247,573 does not teach the claimed invention, which introduces compressed air into cylinders during the compression strokes, and which includes the second compressor limitations as expressed in claim 49. Therefore, claim 49 is believed to be patentable over USSR 1,247,573.

10. Examiner indicates that claim 35 will be allowed if made self-contained and definite in form. Applicant appreciates this indication of allowability and believes that claim 35, as amended and in view of modification made to claim 34, remains allowable.

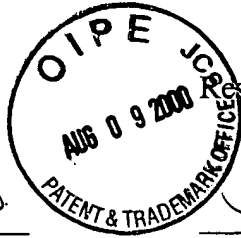
11. Claims 26, 31, and 43 have been deleted without prejudice.

12. Claims 52 and 53 have been added. Applicant believes that these claims maintain at least the mentioned distinctive limitations and are not anticipated by the cited prior arts.

13. Applicant acknowledges that patents to Patterson, Miller '490, Du Bois, Hierath, and Asaka have been considered for the present application.

14. Favorable consideration of these claims and early Notice of Allowability is courteously solicited. The undersigned welcomes a telephone call from the Examiner if it will be helpful in further clarifying any issues.

W



Respectfully Submitted

Date:

8/9/2000

Louis T. Isak

Registration No. 29,078

Li Kan Wang

Registration No. 44,393

WOMBLE CARLYLE SANDRIDGE & RICE, PLLC

1201 West Peachtree Street, NW

One Atlantic Center, Suite 3500

Atlanta, Georgia 30309

(404) 870-7000

W